



**FISCAL YEAR 1999**

**ENVIRONMENTALLY PREFERABLE PRODUCT  
PILOT PURCHASE PROGRAM  
FINAL REPORT**

**OPERATIONAL SERVICES DIVISION**

**June 2000**

**The Pilot Purchase Program is Coordinated by:**

The Operational Services Division (OSD)  
1 Ashburton Place, Room 1017  
Boston, MA 02108-1552

**Funding for the Pilot Purchase Program is Provided by:**

The Executive Office of Environmental Affairs  
Department of Environmental Protection  
Chelsea Center for Recycling and Economic Development

**For Further Information, Contact:**

Eric Friedman, Environmental Purchasing Coordinator  
eric.friedman@state.ma.us  
617 720-3351

Marcia Deegler, Environmental Purchasing Trainer  
marcia.deegler@state.ma.us  
617 720-3356

Visit OSD's environmental procurement home page to download this document and gather information about other environmental programs and projects sponsored by OSD and partner agencies:

**<http://www.magnet.state.ma.us/osd/enviro/enviro/htm>**

**This report was written by:**

**Dmitriy V. Nikolayev**  
**Environmental Purchasing Intern**

**Lori Etringer**  
**Environmental Purchasing Intern**

**Eric Friedman**  
**Environmental Purchasing Coordinator**

**Marcia Deegler**

## **Environmental Purchasing Trainer**

## **I. SUMMARY AND BACKGROUND**

In Fiscal Year 1999 (July 1, 1998 - June 30, 1999), the Operational Services Division (OSD) allocated approximately \$21,617 in funding from the Clean Environment Fund through Executive Office of Environmental Affairs (EOEA) and the Chelsea Center for Recycling and Economic Development to purchase and test environmentally preferable products throughout the state. The aim of the program, in its fourth year, was to continue to research and promote the use of environmentally preferable products (EPPs) with the potential for widespread application within the state. The program was coordinated by a working group from OSD, EOEA, the Department of Environmental Protection (DEP), and the Chelsea Center for Recycling and Economic Development. Products in 13 different categories were purchased for testing and evaluation.

## **II. PRODUCT SELECTION CRITERIA**

The primary criterion for products purchased in the program was that they have a lesser or reduced effect on human health and the environment when compared to other products and services that serve the same purpose. Two other criteria included untapped potential for wider use by municipalities and state agencies, and resistance from purchasers in buying these products. Two products were tested as innovative in order to determine how feasible it is to introduce them into the state contract system.

Using the above criteria, the working group purchased products in the following categories during Fiscal Year 1999:

- anti-freeze, recycled
- carpeting, recycled
- cold patch, recycled
- exhibit panels, recycled
- ink, recycled
- mulch, recycled
- oil, re-refined
- paint, recycled
- paper, recycled
- planters, recycled plastic
- plastic lumber furniture
- toner cartridges, remanufactured
- traffic cones, recycled plastic

Please see Attachment A for a summary of spending by product category.

## **III. FACILITY IDENTIFICATION**

When selecting test sites, the Pilot Purchase Program staff identified state and municipal agencies, as well as various institutions using significant quantities of one or more of the above-mentioned products.

In Fiscal Year 1999, OSD continued to conduct *Buy Recycled* workshops to educate state and municipal purchasers about environmental procurement products and practices. In the workshops, purchasing officials learned about the Pilot Purchase Program and the opportunities for participation. The combination of outreach and “word of mouth” within the purchasing community provided the working group with a number of agencies and municipalities that were excited about participating in the program.

Once again, the program targeted municipalities. Unlike state agencies, municipalities are not required to use state contracts to purchase goods and services and, therefore, present significant opportunities for wider introduction of EPPs through increased use of the statewide contracts. The working group determined that the Pilot Purchase Program would be a good vehicle with which to reach municipalities.

As in Fiscal Year 1998, OSD operated the recycled Paint for Cities and Towns Project in conjunction with the Department of Environmental Protection (DEP) grant program. Through this program, municipalities were able to buy recycled paint with a 50% subsidy. Nine municipalities and one public school took part in the program. Franklin County and Southern Berkshire Solid Waste Management Districts and Hillside Resource Management Cooperative assisted OSD in the distribution of products such as recycled plastic traffic cones, cold patch and recycled paint among member municipalities.

In addition to the Paint for Cities and Towns, the Pilot Purchase Program purchased Remanufactured Toner Cartridges to conduct a thorough test of their performance. The results of the test have been summarized in a special report available from OSD.

Please see Attachment C for a complete list of products and recipients.

#### **IV. PROCUREMENT PROCESS**

OSD coordinated the procurement of all products purchased under the Program. Two methods of procurement were utilized: state contract price agreements and Requests for Quote (RFQ) for non-contract purchases under \$1,000. The majority of purchases were made through state contractors, who supplied the following products: copy paper, antifreeze, carpeting, paint, mulch, plastic lumber furniture, traffic cones, toner cartridges, recycled plastic planters, and re-refined oil were purchased from statewide contracts. RFQs were used for purchasing cold patch, ink and recycled exhibit panels.

Most products were purchased using the Pilot Purchase funds provided by EOEA and the Chelsea Center and were free of charge to the recipients. Exceptions included paint, for which program participants paid 50 percent.

Based on results of the 1999 Pilot Purchase Program, OSD took steps to incorporate some products, such as mulch, recycled plastic planters, and plastic lumber furniture, onto statewide contracts. OSD also worked to expand marketing efforts for re-refined oil and recycled

antifreeze, two products currently listed on statewide contract. In the near future, OSD is considering the possibility of incorporating recycled cold patch onto statewide contracts.

## **V. PRODUCT EVALUATION**

Products were purchased and distributed in May and June of 1999 and were tested over a number of months. In the Fall of 1999, OSD sent out evaluation forms to Pilot Purchase participants. These evaluation forms were used to gather feedback on satisfaction with both the product and the program. Eighty-seven evaluations were sent out, and 68 were returned, for a response rate of 78%. Following are synopses of feedback gathered on the different products.

### **Anti-freeze, recycled**

The Town of Groton Highway department tested 110 gallons of recycled antifreeze over a three-month period. The product was given the highest possible rating in all evaluation categories. The respondent would recommend the product to other agencies and would readily purchase the product again.

### **Carpeting, recycled**

Two sites at the University of Massachusetts, Boston and Lowell, tested recycled carpeting, a product made with recycled nylon in the face fiber. In one instance, the carpet was installed in a high-traffic location; in the other, it was placed in a library conference room. One site had difficulty scheduling the installation and believed the product was expensive to install. Both testers rated the product above average on appearance, installation and initial use.

### **Cold patch, recycled**

OSD purchased cold patch for four municipalities in FY1999. Cold patch is made with 100% recycled plastic aggregate from computers and electronic components and used to fill potholes. Only two of the four evaluations were returned. Both respondents rated the product above average for appearance and initial use. One tester was very satisfied with the product and considered it better than the product normally used. The other respondent was moderately satisfied and felt the cold patch compared below average to the product normally used.

### **Exhibit panels, remanufactured**

OSD purchased three remanufactured table top exhibit panels that were used to showcase OSD's work at tradeshow, conferences and other public gatherings. The individual who assembled and used the display rated the product "excellent" in all categories. The respondent felt this particular product was ideal for its purpose and stated he would both purchase the product again and recommend it to others. In addition, he noted that he would have purchased new panels if the opportunity to test remanufactured panels had not arisen.

### **Ink, recycled**

One Boston-based printer tested recycled ink on several jobs using an offset press. The printer expressed satisfaction with most aspects of the product. However, the printer was somewhat disappointed with the final printed product because the color (black) had a slightly faded look.

### **Mulch, recycled**

Two organizations received recycled mulch for testing – the Town of Sharon and UMass Amherst. Both used the product to landscape trees and shrubs in various locations. The testers rated the product as average in most categories and would recommend it to others. One respondent felt the quality was good, but the product performed more like compost than bark mulch. The other tester would purchase the product again.

### **Oil, re-refined**

Nineteen Massachusetts municipalities tested more than 1,200 gallons of oil. Three-fourths of testers returned the evaluation forms. Most respondents rated the product above average in performance, use and comparability to virgin motor oil. More than half said they would recommend the product and purchase it again.

### **Paint, recycled**

For the second consecutive year, OSD purchase recycled paint for nearly 20 municipalities and agencies. Reactions among testers were mixed. Some gave high ratings in nearly all categories. Others felt the paint had strong odors and was too thin to provide sufficient coverage. A few respondents felt time would provide the true test of the product's performance. The majority of respondents indicated they would buy the product again and recommend it to others.

### **Paper, recycled**

Both OSD and DEP conducted product evaluations for copy paper in FY99 that produced interesting results. OSD supplied paper to six school buying offices, while DEP assisted over three dozen municipalities purchase the product. The schools reported some jams in older equipment and were less receptive to purchasing recycled primarily on the basis of a slightly higher cost. The cities and towns, on the other hand, did report some minor concerns (e.g. infrequent jams, appeared thinner than virgin paper), but overall were very satisfied with the performance and quality of the paper. In fact, over 86% stated that they would continue to purchase recycled paper and almost no mention was made to cost.

### **Planters, recycled plastic**

Seventeen municipalities received recycled plastic planters from OSD. The towns used them in a variety of settings, including schools, city halls, government centers and municipal buildings.

The product received exceptionally high evaluations from nearly all testers. However, one minor dissatisfaction commonly mentioned by evaluators was the lack of drainage holes in the planters.

### **Plastic lumber furniture**

Two agencies tested recycled plastic lumber. The Department of Environmental Management received picnic tables, and the Town of Plainville received dimensional lumber, with which it repaired park benches. One respondent believed the plastic lumber was very easy to work with to construct the park bench. Another felt the assembly of the picnic table was difficult. Both respondents gave average to above-average marks in all evaluation categories. However, they could not comment on the strength and long-term durability of plastic lumber compared to wood until more time had passed.

### **Toner cartridges, remanufactured**

In the latter part of 1999, OSD worked with six state agencies and two municipal departments to test the performance of the remanufactured laser printer toner cartridges on contract. The participants were required to follow the same testing and record keeping procedures so that the evaluation could be based on consistent data. While a limited number of the departments did report some problems with the product, such as inconsistent print quality, the majority was very satisfied with the cartridge performance. Overall, 78% stated that the quality of the remanufactured cartridges was equal to the OEM products they had used in the past and that they would continue using them. In addition, on the basis of this comparison and in light of the fact that the remanufactured products save money, these departments recommended their purchase to other agencies as well.

### **Traffic cones, recycled plastic**

OSD purchased four dozen recycled plastic traffic cones and distributed them among seven municipalities. The product received top ratings in all evaluation categories. Furthermore, all respondents stated they would recommend the product to others and purchase it again.



## VI. PROGRAM EVALUATION

- ? As a method of testing products for future state contracts, the Program has been a marked success. In FY98, OSD established a state contract for recycled paint. In FY99, contracts for remanufactured toner cartridges, plastic lumber and recycled plastic products, and recycled flooring products were added. All of these products had first been tested in the Pilot Purchase Program.
- The majority of respondents (65 percent) were 'very satisfied' with the FY99 Pilot Purchase Program. Twenty-eight percent were 'Somewhat Satisfied,' and seven percent gave no response. As in past years, negative program ratings were usually linked to negative product ratings.
  - Ninety-three percent of respondents expressed a willingness to take part in future Pilot Purchase Programs. That this percentage is higher than those 'Very Satisfied' with the program implies that testers believe the program is worthwhile, even if they were not fully satisfied with the product they tested.

## VII. RECOMMENDATIONS

The Pilot Purchase Program continues to be a valuable tool for educating the purchasing community and for testing innovative products. However, several recommendations to make this project more efficient could be made:

1. *Perform longer-term evaluations and follow-up.* Presently, an evaluation is completed several months after the products are delivered and installed. However, one of the greatest advantages for some of these products is their durability. For other products, their intended life is much greater than a few months. In order to get an accurate assessment of their performance compared to non-environmentally preferable products, it would be necessary to gather longer-term feedback.
2. *Improve communications with the test sites.* Once again, communication with the test sites sometimes was difficult due to initial contact persons delegating responsibility. All the agencies participating in the program should designate a contact person who would be responsible for returning the packing slips and filling out the evaluation form. This should be made part of the agreement between OSD and the agency from the very beginning. The

contact person should then receive a letter stating his/her specific responsibilities and the kind of assistance the program coordinator would expect from him/her.

3. *Evaluate the greater impact of the Pilot Purchase Program.* While one of the tenets of the Pilot Purchase Program is to change the purchasing habits of officials, no framework is in place to actually evaluate if these changes are occurring. Therefore, opportunities need to be found to track the impact the Program has had on overall EPP purchasing practices. A survey could be compiled and distributed among the participants of the past years' programs.
4. *Design a program manual.* The Pilot Purchase Program run by an intern is likely to "change hands" before completion. It would be useful to document the common as well as most effective practices in order to continually improve the program. It will also reduce the time necessary for a new intern to learn about the program. The manual could contain a timeline for the program with specific steps to take at each stage.
5. *Work with the vendors on the evaluation process.* The program could assist the vendors in getting meaningful feedback from the users and improving their products. This would make the impact of the evaluation process more significant and could be one of the things to emphasize working on the return rate of the evaluations.
6. *Improve the evaluation form.* Several suggestions could be made for the improvement of the evaluation form itself.
  - The evaluation form could be more product specific allowing retrieval of more information. It could contain a number of core questions common for all the products, while other questions would vary.
  - The perceived length of the form should be reduced. Ideally, the designer of the form should make it fit on one page.
  - The comment lines after each question in Section III was underutilized by the respondents. One comment section for the whole evaluation form or one comment space for each section of the form should be provided.
  - Attention should be paid to questions "split" by respondents into two. For example, the question on assembly, installation and initial use in case of recycled paint would require two separate answers if the respondent would like to rate mixing and application differently.

ATTACHMENT A PILOT PURCHASE SPENDING SUMMARY	
PRODUCT CATEGORY	PRODUCT COST
anti-freeze, recycled	173
carpeting, recycled	7,953
cold patch	868
exhibit panels, recycled	437
ink, recycled	90
Mulch	995
oil, re-refined	3,602
paint, recycled	3,177
paper, recycled	617
planters, recycled plastic	455
plastic lumber outdoor furniture & decking	1,821
toner cartridges, remanufactured	1,003
traffic cones, recycled plastic	427
<b>TOTAL:</b>	<b>\$21,617</b>

<p align="center"><b>ATTACHMENT B</b></p> <p align="center"><b>SATISFACTION WITH PILOT PURCHASE PROGRAM</b></p>
---

	Very	Somewhat	No Response
<b>Satisfaction with Program</b>	44	19	5
% of Total	65%	28%	7%

	Yes	No	No Response
<b>Willingness to Participate in the Future Program</b>	63	1	4
% of Total	93%	1%	6%

## ATTACHMENT C - SUMMARY OF RECIPIENTS AND PRODUCTS

<p><b>ANTI-FREEZE</b> Town of Groton</p> <p><b>CARPETING</b> UMass Boston UMass Lowell</p> <p><b>COLD PATCH</b> Great Barrington Groton Holyoke Waltham</p> <p><b>COPY PAPER</b> Rockport Elementary School City of Boston South Yarmouth Public Schools UMass Dartmouth UMass Worcester Medical Center Bourne Public Schools Sandwich</p> <p><b>EXHIBIT PANELS</b> OSD</p> <p><b>INK</b> Red Sun Press, Boston</p> <p><b>MULCH</b> Town of Sharon UMass Amherst</p> <p><b>OIL, RE-REFINED</b> Town of Amherst Town of Bourne Town of Greenfield Town of Hardwick Town of Kingston</p>	<p><b>OIL, REREFINED</b> <i>(continued)</i> Town of Lee City of Marlboro City of Melrose City of Newburyport City of Newton City of North Adams City of Northampton Town of Paxton Town of Peabody Town of Reading Town of Saugus Town of Seekonk Town of Wellesley Town of Westborough</p> <p><b>PAINT</b> Town of Amherst Arlington DPW Town of Bellingham Bureau of State Office Buildings Town of Chelmsford Falmouth Public Schools Hillside Resource Management Cooperative Hubbardston Town of Lee Lemuel Shattuck Hospital Town of Leominster City of Marlborough City of Newburyport Town of Reading Town of Truro UMass Boston UMass Lowell Town of Westboro Winchester DPW</p>	<p><b>PLANTERS</b> Arlington Attleboro Bellingham Boston Cambridge Concord Framingham Hampden Millis Needham Plainville Rehoboth Salisbury Stoughton Walpole Waltham Winchester</p> <p><b>PLASTIC LUMBER FURNITURE</b> Town of Plainville Department of Environmental Management</p> <p><b>TONER CARTRIDGES</b> OSD DMR – Central &amp; Galvin Center Town of Groton GIC RMV DSS DET DTA</p> <p><b>TRAFFIC CONES</b> Franklin County SWMD City of Boston</p> <p>(87 sites)</p>
--	---	--

## ATTACHMENT D - DETAILED PRODUCT EVALUATIONS

### ANTIFREEZE

Response rate: 100%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options	100%						5.0
Appearance	100%						5.0
Ease of Assembly & Installation	100%						5.0
Durability	100%						5.0
Satisfaction	100%						5.0
Comparison to Traditional Product	100%						5.0
Customer Service	100%						5.0
	Yes	No	Not Sure				
Recommend Product	100%						
Purchase Again	100%						

### CARPETING

Response rate: 100%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options		100%					4.0
Appearance	50%	50%					4.5
Ease of Assembly & Installation	50%	50%					4.5
Durability						100%	
Satisfaction		50%				50%	4.0
Comparison to Traditional Product		50%				50%	4.0
Customer Service				50%		50%	2.0
	Yes	No	Not Sure				
Recommend Product			100%				
Purchase Again			100%				

## COLD PATCH

Response rate: 50%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options		100%					4.0
Appearance	50%	50%					4.5
Ease of Assembly & Installation	50%	50%					4.5
Durability			50%			50%	3.0
Satisfaction		50%	50%				3.5
Comparison to Traditional Product		50%		50%			3.0
Customer Service	50%					50%	5.0
	Yes	No	Not Sure				
Recommend Product	50%		50%				
Purchase Again	50%		50%				

## COPY PAPER

Response rate: 86%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options	33%	17%	33%	17%			3.7
Appearance	33%	17%	33%	17%			3.7
Ease of Assembly & Installation	33%	17%	17%	17%			3.8
Durability	33%	33%	17%	17%			3.8
Satisfaction	33%	33%	17%	17%			3.8
Comparison to Traditional Product	33%	17%	33%	17%			3.7
Customer Service		17%				83%	4.0
	Yes	No	Not Sure				
Recommend Product	83%	17%					
Purchase Again	50%		50%				

## MULCH

Response rate: 100%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options			100%				3.0
Appearance			100%				3.0
Ease of Assembly & Installation			50%			50%	3.0
Durability			100%				3.0
Satisfaction			100%				3.0
Comparison to Traditional Product			50%	50%			2.5
Customer Service	50%					50%	5.0
	Yes	No	Not Sure				
Recommend Product	100%						
Purchase Again	50%		50%				

## OIL

Response rate: 74%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options	14%	43%	21%		7%	14%	3.7
Appearance	29%	50%	14%	7%			4.0
Ease of Assembly & Installation	14%	50%	21%		7%	7%	3.7
Durability	14%	21%	21%			43%	3.9
Satisfaction	14%	43%	21%			21%	3.9
Comparison to Traditional Product	21%	43%	21%			14%	4.0
Customer Service	7%	7%				86%	4.5
	Yes	No	Not Sure				
Recommend Product	57%		43%				
Purchase Again	57%		43%				



## PAINT

Response rate: 68%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options		23%	15%	15%	8%	38%	2.9
Appearance	23%	38%	31%		8%		3.7
Ease of Assembly & Installation	8%	23%	31%	8%		31%	3.4
Durability	8%	23%	31%			38%	3.6
Satisfaction	15%	38%	31%		8%	8%	3.6
Comparison to Traditional Product	8%	31%	31%	15%	8%	8%	3.2
Customer Service	8%	8%				85%	4.5
	Yes	No	Not Sure				
Recommend Product	54%	8%	38%				
Purchase Again	54%	8%	38%				

## PLANTERS

Response rate: 100%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options	71%	18%	6%			6%	4.7
	88%	6%		6%			4.8
Ease of Assembly & Installation	65%	12%	6%			18%	4.7
Durability	71%	6%			6%	18%	4.6
Satisfaction	82%	6%			6%	6%	4.7
Comparison to Traditional Product	53%	6%			6%	35%	4.5
Customer Service	29%			6%		65%	4.5
	Yes	No	Not Sure				
Recommend Product	94%	6%					
Purchase Again	88%	12%					

## PLASTIC LUMBER FURNITURE

Response rate: 100%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options		67%	33%				3.7
Appearance		67%	33%				3.7
Ease of Assembly & Installation	33%		67%				3.7
Durability		100%					4.0
Satisfaction	33%		67%				3.7
Comparison to Traditional Product		33%	33%			33%	3.5
Customer Service						100%	0.0
	Yes	No	Not Sure				
Recommend Product	33%		67%				
Purchase Again	33%		67%				

## TRAFFIC CONES

Response rate: 86%

	Excellent 5	Good 4	Average 3	< Avg. 2	Poor 1	N/A	Avg. Rank
Range of Options	83%	17%					4.8
Appearance	100%						5.0
Ease of Assembly & Installation	83%					17%	5.0
Durability	50%	50%					4.5
Satisfaction	83%	17%					4.8
Comparison to Traditional Product	83%	17%					4.8
Customer Service	33%					67%	5.0
	Yes	No	Not Sure				
Recommend Product	100%						
Purchase Again	100%						